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## MYOCARDIAL ISCHEMIA AND INFARCTION

### SERIOUS INFECTIONS IN PATIENTS WITH ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION TREATED WITH PRIMARY PCI ARE RARE, BUT ASSOCIATED WITH HIGHER MORTALITY

ACC Poster Contributions

Ernest N. Morial Convention Center, Hall F

Sunday, April 03, 2011, 3:30 p.m.-4:45 p.m.

Session Title: Unstable Ischemic Syndrome -- Clinical: Risk Prediction and Plaque Characterization

Abstract Category: 2. Unstable Ischemic Syndrome--Clinical

Session-Poster Board Number: 1036-354

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**Background:** Little is known about the incidence, location, etiologic organisms, and outcomes of patients (pts) with serious infections and ST-segment elevation myocardial infarction (STEMI) treated with primary percutaneous coronary intervention (PCI).

**Methods:** We analyzed data from 5745 STEMI pts enrolled in the APEX-AMI trial. Detailed information on infection was collected on all patients. We describe characteristics of patients according to infections, including locations as well as specific organisms when known. Cox proportional hazard models were used to assess 90 day outcomes among pts with and without infections after adjusting for clinical variables and using infection as a time-dependent covariate.

**Results:** There were 142 pts who developed at least one serious infection (2.5%). Patients with infections had more comorbidities when compared to those without infections. The majority of pts presented with only one infection. The most common identified organism was *S Aureus*, and the main location was bloodstream. Serious infection was independently associated with higher rates of 90 day death (adjusted HR 5.5; 95% CI 3.7-8.2) and death or MI (adjusted HR 4.9; 95% CI 3.4-7.1).

**Conclusion:** In the contemporary era, the presence of serious infections in pts with STEMI treated with primary PCI is rare, but associated with worse 90 day outcomes. Further studies to identify these high risk pts as well as strategies to reduce risk of infection for this population are warranted.

Table: Pts characteristics

Baseline Patient Characteristics	Serious Infection (N = 142)	No serious Infection (N = 5603)	P - value
Age - median yrs	65	61	<0.001
Gender (% Female)	26.1%	23%	0.391
Diabetes	21.8%	15.7%	0.050
Hypertension	57.7%	49.2%	0.045
Systolic BP (mmHg)	130	133	0.032
Heart Rate (bpm)	79.5	75	0.008
Anterior MI	71.1%	58.8%	0.003
Killip Class (III or IV)	9.9%	1.9%	<0.001
Post PCI TIMI			
Grade 0/1	9.3%	3.3%	<0.001